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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,266	11/05/2001	Jayakumar Jayakumar	081862.P260	7694

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EXAMINER

WONG, WARNER

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,266

Applicant(s)

JAYAKUMAR ET AL.

Examiner

Warner Wong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: The claim appears to depend on independent claim 17 versus claim 12 according to the description "generating secondary SDUs.." Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 6, 10, 11, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauger (6,882,643) in view of Lundback (6,912,590).

Regarding claims 1, 11, 21 and 31, Mauger describes a method/system/router comprising: "generating an MPLS packet from the ATM packet, wherein the ATM packet comprises an ATM header" and "routing the MPLS packet over an MPLS network" (fig. 4, ATM over MPLS option 1, and col. 10, lines 57-60, 45-47 "MPLS network.. provides a tunneled transport capability over which the ATM service is provided transparently via ATM connection control..").

Mauger fails to show what Lundback describes as a related art for routers in IP networks, comprising: "receiving an AAL5 CPCS-SDU" and "encapsulating the AAL5-

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CPCS-SDU into AAL5 enhanced packet" (col. 2, lines 54-61, "To transport IP packets over ATM, the ATM Adaptation Layer 5 (AAL5) is often used.. Encapsulation of IP packets into AAL5 SDU is specified in the Internet Engineering Task Force (IETF) Request For Comment (RFC) number 1483", where IP packets are segmented into ATM payloads called AAL5 CPCS-SDU.)

It would have been obvious to one with ordinary skill in the art at the time of invention to specify the ATM technology of Lundback into include specifically the AAL5 support as in Mauger. The motivation being that ("To transport IP packets over ATM, the ATM Adaptation Layer 5 (AAL5) is often used..", col. 2, lines 54-61).

Regarding claims 5, 10, 15, 20, 25, 30, 35 and 40, Lundback describes receiving and generating ATM and Ethernet as secondary SDU of other layer 2 protocols (Lundback, col. 3, line 46-47 & 60, "The IP handler is capable of handling different types of IP interfaces.. IP links (e.g., sockets, ATM, and Ethernet)". whereas Mauger describes receiving and generating Frame Relay and SONET as secondary SDU of other layer 2 protocols ("col. 1, lines, 11-14 "two types of legacy telecommunications..first type is connection-oriented..., typically in TDM [SONET] frames", lines 41-52 "[MPLS] in the handling of certain services, particular for PSTN/ISDN, Leased-Line, Frame Relay, and ATM services.. A further object of the invention is to provide an improved arrangement and method for providing MPLS transport in a telecommunications network."))

Regarding claims 6, 16, 26 and 36, Mauger describes a method/system/router comprising: "receiving a MPLS packet" and "decapsulating the MPLS packet when the

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MPLS packet is an ATM (fig. 4, ATM over MPLS option 1, and col. 10, lines 57-60, 45-47 "MPLS network.. provides a tunneled transport capability over which the ATM service is provided transparently via ATM connection control..").

Mauger fails what Lundback describes as a related art for routers in IP networks, comprising: "producing an AAL5 CPCS-SDU from the AAL5 enhanced packet, wherein the AAL5 (enhanced) packet comprises an ATM header" (col. 2, lines 54-61, "To transport IP packets over ATM, the ATM Adaptation Layer 5 (AAL5) is often used.. Encapsulation of IP packets into AAL5 SDU is specified in the Internet Engineering Task Force (IETF) Request For Comment (RFC) number 1483", where IP packets are segmented into ATM payloads called AAL5 CPCS-SDU.)

It would have been obvious to one with ordinary skill in the art at the time of invention to incorporate into Mauger's method the ATM functionality in an IP network from Lundback. The motivation being that it is "capable of handling different types of IP interfaces" (Lundback, col. 3, lines 45-47).

4. Claims 2, 7, 12, 17, 22, 27, 32 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mauger and Lundback, and further in view of Rekhter (6,339,595).

Regarding claims 2, 7, 12, 17, 22, 27, 32 and 37, Mauger and Lundback describe the method as per claim 1, which comprises an AAL5 CPCS-SDU (segmented IP packet) and a control word (Access Control Field of an ATM header).

Mauger and Lundback fail to describe an AAL5 (enhanced) packet comprising an MPLS label stack.

Rekhter references a complementary internet draft which incorporates a MPLS label stack to the IP datagram (col. 39, lines 30-35, "Every LSR is capable of .. (b) adding a label stack to the datagram,"

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the method of Mauger and Lundback with Rekhter 's reference of adding a MPLS label stack to the datagram for the motivation of "This document specifies procedures which allow one to configure the network so that large datagrams from hosts which do not implement Path MTU Discovery get fragmented just once, when they are first labeled." (col. 38, lines 38-41).

Regarding claims 3-4, 8-9, 13-14, 18-19, 23-24, 28-29, 33-34, and 38-39, Mauger and Lundback describe the method as per claims 2, 7, 12, 17, 22, 27, 32 and 37 respectively.

Mauger and Lundback fail to describe the routers being label switch routers or label edge routers.

Rekhter describes CE/PE-routers as being label edge routers (col. 2, 60-65) and P-routers as label switch/transit routers (LSR) (col. 2, 66-67).

It would have been obvious to one with ordinary skill in the art at the time of invention to incorporate the router types of Rekhter into the routers of the combined method of Mauger and Lundback for the motivation "So the customer enterprise does not really need to maintain a backbone router at each site; it just needs a router that

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attaches to one of the SP's backbone routers." (col. 2, 47-49) where a 'router' is a label edge router and a 'backbone router' is a label switch.

Conclusion

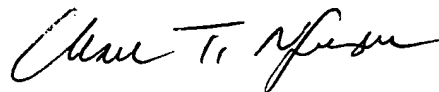
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 6:00AM - 3:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2661

WW



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